**Name:** Vernalyn Rowe

**Grade** Kindergarten

**Subject:** Science

**Topic: Waste-** Changing Paper- Paper Recycling

**Science Standard:**

PS 3.1b,c,e: Observe, describe, and identify the properties of materials (e.g., wood, plastic, metal)

PS 3.1b,c,: Observe and describe physical properties of objects using all appropriate senses

**Common Core Learning Standard**

[CCSS.ELA-LITERACY.W.K.8](http://www.corestandards.org/ELA-Literacy/W/K/8/)  
With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

**Teacher Competency**

3c: Engage Students in Learning

**Objectives:** Students will be able to:

\*record observations on how paper products change when soaked in water

\*create a piece of recycled paper

**Inquiry Question:**

How can new paper be made from old?

**Science Concepts**

* New paper can be made from old paper.
* Recycling extends the use of trees.

**Vocabulary**

***absorb, blot, flip, fiber, pattern, pulp, recycle, roll, screen***

**Materials (**foreach student**)**

*1 clear plastic bottle***,** 2 screens, 1 sponge, 1 self- stick note, 2 sheets of newspaper

(For the class)

waxed paper, roll of single ply toilet paper, water, basins, Center Instruction Card - Paper Recycling

**Teaching Strategies**

Small groups, hands-on activity

**Guiding the Investigation:**

#1. ***Introduce Paper Recycling***

Ask students to recall where paper comes from (wood) and where wood comes from (trees)

\*\* Have them imagine the trees that were cut to make the paper in their classroom.

\*\*Teacher tells children that they are going to make a small piece of paper. Teacher shows them the piece of paper she made and the toilet tissue he used to make it.

\*\*Teacher tells students that when you use old paper to make new paper, we call that **recycling**. We can save trees by recycling old paper.

#2. ***Make the paper pulp***

The students will stuff 8 squares of toilet tissue into the empty bottles. Add water to fill bottles ⅔ full. Have students shake the bottles for 3-5 minutes and tell you when the paper has broken down into very small pieces or **pulp.**

Use strainers to screen the pulp.

#3 **Screen the pulp**

Pour thepulp onto the screen. Distribute the pulp over the bottom of the screen. Place a second screen on top of the pulp.

#4 **Soak** **up the water and roll out the paper**

Soak up the water and roll out the paper

#5 **Guide the discussion with questions:**

As students work, ask questions to guide their progress.

* What happens to the pieces of paper when you add the water?
* When you shake them up?
* Where does the water go when you press the pulp with the sponge?
* What happens when you roll the bottle over the paper?
* What does the paper look like when it begins to dry?
* Compare the recycled paper to the tissue used to make the pulp.

As students offer their observations, teacher adds any new or important vocabulary to the class Word bank.

**#6 Dry the paper**

Label the newly made pieces of paper with self-stick notes. Let them dry overnight on the waxed paper.

**#7 Make Content Chart Entries (What We Learned)**

* **What does recycling mean? (*Recycling is using old things for something new*.)**
* **Why use old paper to make new paper? *(Paper comes from trees. When we use recycle paper, we don’t need to cut as many trees*.)**

**Assessment Task:**

Using a combination of pictures, labels, and sentences, students make a journal entry on what they learned.

**RUBRIC**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Beginner | On the way | Mastery |
| Drawing | Student has no marks that can be identified as related to the topic. | The student is missing main details to identify the picture. | The student’s drawing contains the main details and materials related to the topic. |
| Ideas and Content | Writing has different topics, confusing and hard to follow | Writing has one main topic, but few to no details | Writing is clear and focused, holding the reader attention, main ideas stand out and are supported by details |
| Learned Strategy | Student cannot understand new strategy and apply it to work | Student shows little understanding of new strategy. | Student understands new strategy and can describe clearly. |